### TAMARACK NICKEL PROJECT HIGH-GRADE NICKEL-COPPER-COBALT THE NEXT LOW-COST PRODUCER OF NICKEL IN THE USA



RIO TINTO (KENNECOTT EXPLORATION COMPANY) JOINT VENTURE

January 2022

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This presentation contains certain "forward-looking statements". All statements, other than statements of historical fact that address activities, events or developments that Talon believes, expects or anticipates will or may occur in the future are forward-looking statements. These forward-looking statements reflect the current expectations or beliefs of Talon based on information currently available to Talon. Such forward-looking statements include, among other things, statements relating to future exploration potential at the Tamarack North Project, including the potential expansion of the resource; the Company's ability to complete an earn-in up to a 60% ownership interest in the Tamarack Project (comprised of the Tamarack North Project and the Tamarack South Project); the Company's planned work program for the Tamarack North Project, including potential drill results; the Company's supply of Nickel Concentrate to Tesla; the Company's expectations relating to timing of and results of future studies; the Company's expectations of demand for Nickel, supply of nickel and the price of nickel; the Company's expectations concerning the economic viability of the Tamarack Project; the Company's plans for tailings and permitting; the Company's goal to produce Green Nickel; the Company's expectations with respect to its financial resources, royalties, and targets, opex, capex, goals, NPV, objectives and plans and the timing associated therewith.

Forward-looking statements are subject to significant risks and uncertainties and other factors that could cause the actual results to differ materially from those discussed in the forward-looking statements, and even if such actual results are realized or substantially realized, there can be no assurance that they will have the expected consequences to, or effects on Talon. Factors that could cause actual results or events to differ materially from current expectations include, but are not limited to: changes in commodity prices, including nickel; the Company's inability to raise capital and/or pay Kennecott Exploration Company pursuant to the Option Agreement dated November 7, 2018 (and the amendments thereto); the lack of electric vehicle adoption or in the event of such adoption, such not resulting in an increased demand for nickel or there being a nickel deficit; the inability of Tesla and the Company to enter into detailed supply terms and conditions; negative metallurgical results; changes in interest rates; risks inherent in exploration results, timing and success, including the failure to identify mineral resources or mineral reserves; the uncertainties involved in interpreting geophysical surveys (including DHEM, MMR. Surface EM, RIM), drilling results and other geological data; inaccurate geological and metallurgical assumptions (including with respect to the size, grade and recoverability of mineral reserves); uncertainties relating to the financing needed to further explore and develop the Tamarack North Project or to put a mine into production; the costs of commencing production varying significantly from estimates; unexpected geological conditions; changes in power prices; unanticipated operational difficulties (including failure of plant, equipment or processes to operate in accordance with specifications, cost escalation, unavailability of materials, equipment and third-party contractors, inability to obtain or delays in receiving government or regulatory approvals, industrial disturbances or o

Any forward-looking statement speaks only as of the date on which it is made and, except as may be required by applicable securities laws, Talon disclaims any intent or obligation to update any forward-looking statement, whether as a result of new information, future events or results or otherwise. Although Talon believes that the assumptions inherent in the forward-looking statements are reasonable, forward-looking statements are not guarantees of future performance and accordingly undue reliance should not be put on such statements due to the inherent uncertainty therein.



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# **TECHNICAL REFERENCE**

The mineral resource figures disclosed in this presentation are estimates and no assurances can be given that the indicated levels of nickel, copper, cobalt, platinum, palladium and gold will be produced. Such estimates are expressions of judgment based on knowledge, mining experience, analysis of drilling results and industry practices. Valid estimates made at a given time may significantly change when new information becomes available. While the Company believes that the resource estimates disclosed in this presentation are well established, by their nature resource estimates are imprecise and depend, to a certain extent, upon statistical inferences which may ultimately prove unreliable. If such estimates are inaccurate or are reduced in the future, this could have a material adverse impact on the Company.

Mineral resources are not mineral reserves and do not have demonstrated economic viability. Inferred mineral resources are estimated on limited information not sufficient to verify geological and grade continuity or to allow technical and economic parameters to be applied. Inferred mineral resources are too speculative geologically to have economic considerations applied to them to enable them to be categorized as mineral reserves. There is no certainty that mineral resources can be upgraded to mineral reserves through continued exploration.

Please see the technical report entitled "NI 43-101 Technical Report Updated Preliminary Economic Assessment (PEA) #3 of the Tamarack North Project – Tamarack, Minnesota" with an effective date of January 8, 2021 (the "**2021 PEA**") prepared by independent "Qualified Persons" (as that term is defined in National Instrument 43-101 ("NI 43-101")) Leslie Correia (Pr. Eng), Andre-Francois Gravel (P. Eng.), Tim Fletcher (P. Eng.), Daniel Gagnon (P. Eng.), Volodymyr Liskovych (P. Eng.), David Ritchie (P. Eng.), Oliver Peters (P. Eng.), Andrea Martin (P.E.) and Brian Thomas (P. Geo) for information on the QA/QC, data verification, analytical and testing procedures at the Tamarack Project. Copies are available on the Company's website (www.talonmetals.com) or on SEDAR at (www.sedar.com). The laboratory used is ALS Minerals who is independent of the Company.

#### Where used in this presentation:

NiEq % = Ni%+ Cu% x \$3.00/\$8.00 + Co% x \$25.00/\$8.00 + Pt [g/t]/31.103 x \$1,000/\$8.00/22.04 + Pd [g/t]/31.103 x \$1,000/\$8.00/22.04 + Au [g/t]/31.103 x \$1,300/\$8.00/22.04 + Co% x \$25.00/\$3.00 + Pt [g/t]/31.103 x \$1,000/\$3.00/22.04 + Pd [g/t]/31.103 x \$1,000/\$3.00/22.04 + Au [g/t]/31.103 x \$1,300/\$3.00/22.04 + Pd [g/t]/31.103 x \$1,000/\$3.00/22.04 + Au [g/t]/31.103 x \$1,300/\$3.00/22.04 + Pd [g/t]/31.103 x \$1,000/\$3.00/22.04 + Au [g/t]/31.103 x \$1,300/\$3.00/22.04 + Pd [g/t]/31.103 x \$1,000/\$3.00/22.04 + Au [g/t]/31.103 x \$1,300/\$3.00/22.04 + Pd [g/t]/31.103 x \$1,000/\$3.00/22.04 + Au [g/t]/31.103 x \$1,300/\$3.00/22.04 + Pd [g/t]/31.103 x \$1,000/\$3.00/22.04 + Au [g/t]/31.103 x \$1,300/\$3.00/22.04 + Pd [g/t]/31.103 x \$1,000/\$3.00/22.04 + Au [g/t]/31.103 x \$1,000/\$3.00/22.04 + Pd [g/t]/31.103 x \$1,000/\$3.00/22.04 + Au [g/t]/31.103 x \$1,000/\$3.00/22.04 + Pd [g/t]/31.103 x \$1,000/\$3.00/22.04 + Au [g/t]/31.103 x \$1,000/\$3.00/22.04 + Pd [g/t]/31.103 x \$1,000/\$3.00/22.04 + Au [g/t]/31.103 x \$1,000/\$3.00/22.04 + Pd [g/t]/31.103 x \$1,000/\$3.00/22.04 + Au [g/t]/31.103 x \$1,000/\$3.00/22.04 + Pd [g/t]/31.103 x \$1,000/\$3.00/22.04 + Au [g/t]/31.103 x \$1,000/\$3.00/22.04 + Pd [g/t]/31.103 x \$1,000/\$3.00/22.04 + Au [g/t]/31.103 x \$1,000/\$3.00/22.04 + Pd [g/t]/31.103 x \$1,000/\$3.00/22.04 + Au [g/t]/31.103 x \$1,000/\$3.00/22.04 + Pd [g/t]/31.103 x \$1,000/\$3.00/22.04 + Au [g/t]/31.103 x \$1

The 2021 PEA is preliminary in nature. The 2021 PEA includes inferred mineral resources. Inferred mineral resources are considered too speculative geologically to have economic considerations applied to them that would enable them to be categorized as mineral reserves. There is no certainty that the 2021 PEA will be realized.

The mineral resource estimate contained in this presentation was prepared by or under the supervision of Mr. Brian Thomas (P.Geo.), who is a geologist independent of Talon and an employee of Golder Associates Ltd. In addition, Mr. Thomas has reviewed the sampling, analytical and test data underlying such information and has visited the site and reviewed and verified the QA/QC procedures used at the Tamarack North Project and found them to be consistent with industry standards. Dr. Etienne Dinel, Vice President, Exploration of Talon, is a Qualified Person within the meaning of NI 43-101. Dr. Dinel is satisfied that the analytical and testing procedures used are standard industry operating procedures and methodologies, and he has reviewed, approved and verified the technical information in this presentation, including sampling, analytical and test data underlying the technical information.

Lengths in this presentation are drill intersections and not necessarily true widths. True widths cannot be consistently calculated for comparison purposes between holes because of the irregular shapes of the mineralized zones.



## LOCATED IN THE UNITED STATES ON INFRASTRUCTURE

#### THE TAMARACK HIGH GRADE NICKEL PROJECT 54 MILES WEST OF DULUTH, MINNESOTA





# **TAMARACK NICKEL PROJECT - KEY HIGHLIGHTS**



The Tamarack Nickel Project is one of three high-grade Ni-Cu-Co projects on infrastructure discovered in the 21<sup>st</sup> century with a resource prepared in accordance with NI 43-101 suitable for batteries that is pre-development. <u>The ONLY high-grade</u> <u>development stage nickel project in the USA.</u>



The resource, prepared in accordance with NI 43-101, comprises 750 meters along the 18 km Tamarack Intrusive Complex (TIC). The Talon team has proven that significant exploration potential can now be unlocked cost effectively using various geophysical techniques.



Combined Talon Metals and Rio Tinto (Kennecott Exploration) team. The team also has in-house nickel expertise from the Voisey's Bay Nickel Project, Sudbury Basin (Vale) and Falconbridge/Glencore.



Talon secured the right to be the Operator and become the majority JV partner in October 2019. This is the first time that a junior exploration company has operated a Rio Tinto project. In September 2021, Talon successfully secured a majority (51%) stake of the Tamarack Nickel Project.



~C\$25 million in the treasury as of December 31, 2021.



To date, the Company has been predominantly funded by sophisticated resource funds with specific focus on the mining or electric vehicle industries.



Over 75% of the shares are held by management, board and institutions.

**TIGHTLY HELD** 



Paradigm Capital, Sprott Capital, Roth Capital, Couloir Capital and Cantor Fitzgerald. Additional coverage to follow.



**OF PERFORMANCE** 

Talon management and board have previously developed, built and sold numerous companies that realized significant returns to investors. The Tamarack Project is the group's sole focus.



The Company's PEA (Press Release dated February 4, 2021) shows strategic optionality and robust economics even using low nickel prices due to the high-grade nature of the Tamarack Nickel Project.



WELL FINANCED

## **RIO TINTO IS OUR ACTIVE JOINT VENTURE PARTNER**

The Tamarack Nickel Project is comprised of the Tamarack North Project and the Tamarack South Project with 31,000 acres of Private Land and State Leases

Talon has formally earned a 51% majority interest in the Tamarack Nickel Project by:

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Paying US\$6 million in cash and US\$1.5 million in shares to Rio Tinto (completed in March 2019);

Spending US\$10 million on exploration & development and issuing an additional US\$5 million in Talon shares\* to Rio Tinto (completed in September 2021)

To earn an additional 9% interest for a total of 60% (by March 2026):

Complete a feasibility study and pay US\$10 million to Rio Tinto

Under the Option Agreement, Talon is appointed as the operator of the Tamarack Nickel Project, with control over future exploration strategy: Rio Tinto has no back-in right and Talon controls 100% off-take rights

 $\ast$  C\$0.60 per Unit, with a Unit being comprised of 1 common share of Talon and one-half of one purchase warrant exercisable at C\$0.80 per share for a period until September 2022



### A COMBINED TALON AND RIO TINTO\* TEAM

#### **Previously General Counsel and Director of Mergers** Previously COO at Tau Capital. Secured and & Acquisitions at Tau Capital, with project **Sean Werger** Henri van Rooyen managed large exploration projects across 3 divestments of mining projects totalling in excess of President. Head of Investor CEO continents since 2007. Started working with Rio C\$700M. Started working with Rio Tinto's Relations Tinto's KEX/Tamarack team in 2014. Responsible B. Com (Hons), CA (SA) LL.B. MBA Tamarack team in 2014. Responsible for corporate for strategy and project delivery. and legal matters and investor relations. Professional mining engineer with 20+ years **Previously Exploration Geologist with Rio Tinto** experience in mine operations, project execution (2006-2021). Completed a MSc degree on the and consulting. Previously held senior positions with **Brian Goldner** Mark Groulx Tamarack Intrusive Complex in 2012. Seconded **Rio Tinto, Amec Foster Wheeler and PT Freeport Head of Exploration VP Mine Engineering** by Rio Tinto to lead exploration at the Tamarack Indonesia. A specialist in the delivery of engineering Bachelors in Geology, Masters in **B.Sc.E Mine Engineering, MBA** Geology **Project.** Formally joined the Talon team in July studies, having managed numerous multidisciplinary studies for companies including Vale, 2021. **Rio Tinto and Newmont. Previously Senior Manager with Deloitte in the audit** Geophysicist 15 years experience including Inco and financial advisory/valuations groups Vince Conte **Brian Bengert** (now Vale). Major responsibility was Voisey's Bay specializing in mining valuations. Responsible for Head of Geophysics CFO, Head of HR Nickel Project. Principal member of the team that financial modelling of the Tamarack Nickel Project **B.Sc Geophysics, M.Sc** B.Math, CPA, CFA, CBV discovered the Voisey's Bay underground deposit. since 2014 as well as Talon's accounting, financial controls, treasury, auditing, reporting and HR.

Dr. Etienne Dinel VP Geology Bachelor of Geology, Physics (Honours), PH.D, Economic Geology Twenty years of experience in structural geology, petrology and geochemistry. Since 2014, he has been instrumental in predicting massive sulphide extensions at the Tamarack Nickel Project.

Todd Malan Chief External Affairs Officer Previously Vice President of Corporate Relations-Canada & Americas for Rio Tinto, based in Washington DC. Responsible for government relations, media communications and Talon's climate focused initiatives.

### HIGH-GRADE NICKEL SULPHIDE DEPOSITS ARE EXTREMELY RARE

NEW HIGH-GRADE NICKEL SULPHIDE DISCOVERIES ARE DIFFICULT TO FIND

Only two 21st century discoveries with resources on infrastructure are in the pre-development stage

**2008 -** Tamarack Intrusive Complex (TIC) – Minnesota Talon-Rio Tinto (through subsidiary KEX) Joint Venture

**2009 –** Sakatti (Anglo-American): PFS Completed; Environmental & Social Impact Assessment submitted in 2019 AND EXISTING NICKEL SULPHIDE MINE GRADES CONTINUE TO DECLINE



Source: AME, Nickel Mine Grade Decline, November 2015 THEREFORE NICKEL SULPHIDE MINE PRODUCTION AS A % OF TOTAL NICKEL PRODUCTION WILL CONTINUE TO DECLINE

SHARE OF FINISHED NICKEL PRODUCTION FROM SULPHIDE AND LATERITE ORES



It is more expensive to produce nickel from laterites than from high-grade sulphides. As the industry moves to more laterite production, the industry or marginal cost of production increases and prices are expected to follow



#### TAMARACK INTRUSIVE COMPLEX (TIC) STRIKES OVER APPROXIMATELY 18 KM RESOURCE ESTIMATE IS BASED ON ONLY ~750 METRES

### Tamarack North Project NI 43-101 Mineral Resource Estimate (Effective Date: January 8, 2021)

	Classification	%Ni Cut-Off	Tonnes (000)	Ni (%)	Cu (%)	Co (%)	Pt (g/t)	Pd (g/t)	Au (g/t)	NiEq (%)
Total	Indicated Resource	0.5	3,926	1.91	1.02	0.05	0.41	0.26	0.20	2.62
Total	Inferred Resource	0.5	7,163	1.11	0.68	0.03	0.26	0.16	0.14	1.57

0.5% Ni cut-off.

No modifying factors have been applied to the estimates.

Tonnage estimates are rounded to the nearest 1,000 tonnes.

Metallurgical recovery factored into the reporting cut-off.

NiEq grade based on base case metal prices of \$.00/lb Ni, \$.00/lb Cu, \$25.00/lb Co, \$1,000/oz Pt, \$1,000/oz Pd and \$1,300/oz Au using the following formula: NiEq% = Ni%+ Cu% x \$3.00/\$8.00 + Co% x \$25.00/\$8.00 + Pt [g/t]/31.103 x \$1,000/\$8.00/22.04 + Pd [g/t]/31.103 x \$1,000/\$8.00/22.04 + Au [g/t]/31.103 x \$1,300/\$8.00/22.04. No adjustments were made for recovery or payability.



#### **EFFICIENT TO MINE DUE TO:**

- Decline ramp access from surface
- Long-hole stoping/drift and fill
- 9 year mine life (excluding construction)
- First ore within 2 years from start of construction
- 10.8 Mt mined at 1.34% Ni (1.85% NiEq)
- 🔰 3,600 t/d mill feed
- Cemented paste backfill utilizing all high sulphur tailings generated
- Co-disposed Filtered Tailings Facility (CFTF)
  - Studying the potential for sequestrating CO<sub>2</sub> within the CFTF



# TAMARACK RESOURCE : RESOURCE DOMAINS AND DRILL HOLE INTERSECTS

# TALS CORP



# **RESOURCE EXPANSION**

CGO EAST AND CGO BEND

# TALS.

# Vast exploration area with shallow mineralization outside of the resource area.

- Area is defined as "CGO East"
- The current drilling suggest a continuous sulphide mineralization of +600 meters of strike length with thickness variation of 10 to 32 meters and width of ~75 meters
- 21 new holes with spacing of 35 to 60 meters.
- Assays received for twenty (20) holes (See press releases of December 15<sup>th</sup>, 2020, May 4 ,2021 and October 5, 2021)
- Drilling is ongoing testing lateral extension and strike length

• Testing a 100m (w) x 10m (h) x 800m (l) channel of high-grade mineralization



### RESOURCE EXPANSION CGO WEST

# TALS CORP

# Vast exploration area with shallow mineralization outside of the resource area

- Area is defined as "CGO WEST"
- Current drilling (up to 300 meters outside the resource area) suggests continuous shallow nickel-copper mineralization of +200 meters of strike length with thickness of between 5 to 35 meters.
- Assays for 17 holes announced (April 22, 2021, July 6, 2021, September 13, 2021, November 30, 2021) all holes successfully intersected high-grade massive sulphide mineralization
- Assayed holes show the high-grade nature of the "pool" of sulphides
- Holes 21TK0333,21TK0316, 21TK0320 21TK0323, 21TK0336and 21TK0329 show a potential strike length of the "pool" of massive sulphide of more than 150 meters



### **RESOURCE EXPANSION** RESOURCE AREA EXPANSION: EXAMPLE OF GRADE INCREASE



#### Drill Hole 20TK0277

- Intersected <u>138.18 meters (453.35 feet) of semi-</u> massive and disseminated sulphide mineralization grading 2.26 % NiEq. The drill hole extends both the Upper SMSU (semi-massive sulphide unit) and Lower SMSU to the east and north.
- Extends the high-grade mineralization to the east with 39 meters (128 feet) of semi-massive sulphides grading 3.94% NiEq
- New drill holes (i.e., 301, 312, 315) show thick mineralized of Ni-Cu mineralization towards the east
- Potential resource expansion
- Assay remain pending for 301, 312 and 315

90500 21TK0315: 51.6m of Ni-Cu 09TK094: 27m of 1.13% NiEq starting at 349.5m mineralization and 7.5m of 0.92% NiEq starting at 397.5m 21TK0301: 43.58m and 65.23m of Ni-Cu mineralization TAMARACK RESOURCE 21TK0312: 64.45m, 4.34m and AREA 14.16m Ni-Cu mineralization 20TK0277 : 138.18 meters grading 2.26% NiEq starting at 317.5 meters Legend: Coarse-Grained Orthocumulate ("CGO") Fine-Grained Orthocumulate ("FGO") Massive Sulphide Unit +5168400 N ("MSU") Semi-Massive Sulphide See the Company's press releases Unit ("SMSU") dated April 13, 2021, June 15, 2021 and PEA #3 for further technical 138 Zone information on the drill holes 150 300 m 190500 discussed in this press release

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### **RESOURCE EXPANSION** RESOURCE AREA EXPANSION: EXAMPLE OF INCREASED THICKNESS AND GRADE





# EXPLORING THE REMAINING 16.5 KM OF THE TAMARACK INTRUSIVE COMPLEX SIGNIFICANT UPSIDE POTENTIAL OUTSIDE OF THE RESOURCE AREA



### **GREEN NICKEL** FOR A U.S. SUPPLY CHAIN

# TALS CORP

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"Tesla will give you a giant contract for a long period of time if you mine nickel efficiently and in an environmentally sensitive way" -Elon Musk (July 23, 2020) (Co-founder and CEO of Tesla)

- 🇭 HIGH GRADE = SMALL FOOTPRINT
- NICKEL FROM MINE TO BATTERY IN THE USA
- 🗹 NO TAILINGS DAM
- 🧭 GREEN ENERGY FOR AN ELECTRIC MINE FLEET
- 🧭 CARBON CAPTURE AND STORAGE
- COMMUNITY DEVELOPMENT: SUPPORTING SUSTAINABLE GROWTH BEFORE, DURING, & POST-MINE CLOSURE

"At the Tamarack Project, located in Minnesota, USA, we believe that nickel should be produced in an environmentally friendly and socially responsible way. It means that from mine to battery, every step is carefully controlled."

"With Green Nickel, we want people to feel good about the end product, so when you purchase an electric vehicle, you know that you are truly doing your part to protect our environment."

> - Joni Torgerson, CMWPIT, Senior Environmental Scientist, Talon Metals Corp., Tamarack, MN

### **Talon and Tesla Supply Agreement**



On January 10, 2022, Talon and Tesla Inc. entered into an agreement for the supply and purchase of nickel concentrate

Tesla has committed to purchasing 75,000 metric tonnes (165 million lbs.) of nickel in concentrate over 6 years

Purchase price is linked to the LME price of nickel (providing exposure to the price of nickel)

Parties have also agreed to share in byproduct revenues, including from iron and cobalt

Talon and Tesla will work together to optimize nickel concentrate grades and metal recoveries

Tesla has a preferential right to negotiate the purchase of additional nickel concentrate

"This agreement is the start of an innovative partnership between Tesla and Talon for the responsible production of battery materials directly from the mine to the battery cathode" Henri Van Rooyen, CEO



### **2021 Key Performance Indicators**



L Milestone	January 2022 Scorecard
25,000 – 30,000 meter drilling program throughout 2021	Drilled over 33,000 meters during 2021
Operate the project in a safe manner	<b>0</b> lost time injuries in 2021 with a peak of 73 staff and contractors on site
Reduce drilling cost - \$200/m Target	\$129/m achieved with Talon rigs
Expand the resource up-dip and to the north, with the goal of reducing timeline to production	Made two new discoveries (CGO East and CGO West) of massive and mixed massive, high-grade nickel mineralization up-dip
Extend the high-grade Massive Sulphide Unit within the Tamarack Project's current resource area to the south, east and north	Drill holes show extensions to the north on both the east and western limbs; Exploration to the east and south has not started due to the focus on the two, shallow high-grade discoveries
Additional geophysics to cost-effectively identify targets to unlock further potential of the 18 km TIC trend	X-hole seismic system built and tested, showing high-grade delineation between drill holes over 80m, an industry first. Closer spaced MT survey completed north of the resource area showing anomalous conductivity below the resource area and to the north of the resource area where high-grade mineralization was previously intercepted
Further flowsheet development and test work to potentially produce refined ► nickel powders or nickel sulphates, with the goal of establishing a Made in USA Green Nickel <sup>™</sup> supply chain	Initial flowsheet development successfully completed for U.S. mine to battery cathode supply chain. Tesla agreement completed



### **CAPITAL STRUCTURE**



Shares issued	702.5M
Warrants outstanding @ avg. exercise price of C\$0.70	40.1M
<b>Options outstanding</b> @ avg. exercise price of C\$0.31	99.5M
Fully diluted	842.1M
Share price	C\$0.61
Exchange symbol	TLO.TSX
Market capitalization	C\$428M / US\$339M
Cash	~C\$25M / US\$20M
	(As at December 31, 2021)



<b>Resource Capital Funds</b>	19.0%
Pallinghurst Group	19.0%
Rio Tinto	5.8%
Management and directors	3.7%





# ANNEX 1

# **RESULTS OF PRELIMINARY ECONOMIC ASSESSMENT (PEA)**

Please see the technical report entitled "NI 43-101 Technical Report Preliminary Economic Assessment (PEA) #3 of the Tamarack North Project – Tamarack, Minnesota" with an effective date of January 8, 2021 for further information. Copies are available on the Company's website (www.talonmetals.com) or on SEDAR at (www.sedar.com)



### FEBRUARY 2021 PEA NPV INCREASE OF 96% FROM PREVOUS PEA (AND MORE ROOM TO GROW)



		February 2021 PEA							
All amounts in United States dollars	March 2020 PEA <sup>(4)</sup>	NICKEL SULPHATE SCENARIO <sup>(1)</sup>	NICKEL POWDER SCENARIO <sup>(2)</sup>	NICKEL CONCENTRATE SCENARIO <sup>(3)</sup>					
After-Tax NPV <sup>(5), (6)</sup>	US\$291 million	US\$569 million	US\$567 million	US\$520 million					
After-Tax IRR <sup>(5)</sup>	36.0%	31.9%	48.3%	45.6%					
Initial CAPEX and Working Capital	US\$219 million	US\$553 million	US\$316 million	US\$316 million					
Payback Period (after-tax)	2.3 years	2.1 years	1.5 years	1.6 years					
Mine Life / Milling Rate	8 years / 2000 tpd	9 years / 3600 tpd	9 years / 3600 tpd	9 years / 3600 tpd					
$C1 \operatorname{cost}^{(7)}$ (not of by product revenue)	\$2.67/lb of	\$1.02/lb of Ni in	\$0.08/lb of Ni in	\$2.05/lb of					
CT cost <sup>(*)</sup> (het of by-product revenue)	LME Nickel	Ni Sulphate	Ni Concentrate <sup>(8)</sup>	LME Nickel					
$AISC^{(7)}$ (not of by product royonuc)	\$3.57/lb of	\$2.31/lb of Ni in	\$1.07/lb of Ni in	\$3.01/lb of					
Alse (net of by-product revenue)	LME Nickel	Ni Sulphate	Ni Concentrate <sup>(8)</sup>	LME Nickel					

(1) Nickel sulphates produced at site for the EV market

(2) Nickel concentrates produced at site and thereafter used to produce refined nickel powder by a third party for the EV market

(3) Nickel concentrates produced at site and sold to a smelter, which produces LME grade nickel primarily for the stainless steel market

(4) See the technical report entitled "NI 43-101 Technical Report Updated Preliminary Economic Assessment (PEA) of the Tamarack North Project – Tamarack, Minnesota" with an effective date of March 12, 2020 (the "March 2020 PEA"). The March 2020 PEA is available under the Company's issuer profile on SEDAR (www.sedar.com) or on the Company's website (<u>www.talonmetals.com</u>). The March 2020 PEA was based on a nickel concentrate scenario.

(5) Metal prices of \$8.00/lb Ni, \$3.00/lb Cu, \$25.00/lb Co, \$1,000/oz Pt, \$1,000/oz Pd and \$1,300/oz Au. The same metal prices have been used in both the March 2020 PEA and the February 2021 PEA.

(6) Discount rate of 7%

(7) C1 cost includes value of metal claimed by smelter (metal units, treatment charges and refining charges), insurance, losses and transportation costs, less the value of by-products such as copper and cobalt. C1 cost is not an IFRS (International Financial Reporting Standards) measure and, although it is calculated according to accepted industry practice, the C1 cost may not be directly comparable to calculations carried out by other companies.

(8) Nickel Powder Scenario C1 cost and AISC excludes nickel concentrate smelting and refining since the nickel concentrate is not smelted nor refined but sold as a concentrate.

(9) All-in sustaining cost is C1 cost plus royalties, sustaining CAPEX and closure costs.



### FEBRUARY 2021 PEA vs. MARCH 2020 PEA

WORLD CLASS IRR DRIVEN BY HIGH-GRADE DEPOSIT AND LOW CAPITAL INTENSITY

# TALS CORP

#### WORLD CLASS IRR DRIVEN BY:

#### **W** High Grades

- Sood Recoveries
- 🧭 Shallow Mineral Deposit
- Mining Method: Primarily bulk mining with some selective mining in high-grade areas
- 🥑 Clean Concentrate
- 🕑 Improving Payabilities
- Segional Infrastructure
- Solution Capital Intensity; Modest CAPEX

### FURTHER ROOM TO GROW

- Significant Exploration Upside (7 Targets)
- Additional Optimization/Trade-off Studies



■ After-tax NPV-7 (US\$ millions) ■ Initial CAPEX and working capital (US\$ millions) ● After-tax IRR (RHS)

All amounts in US dollars



### FEBRUARY 2021 PEA MINE PLAN

SHALLOW UNDERGROUND MINE AMENABLE TO BULK MINING METHODS



#### **EFFICIENT MINE DUE TO:**

- Decline ramp access from surface
- Long-hole stoping/drift and fill
- 9 year mine life (excluding construction)
- First ore within 2 years from start of construction
- **10.8** Mt mined at **1.34%** Ni (**1.85%** NiEq)
- 3,600 t/d mill feed
- Cemented paste backfill utilizing all high sulphur tailings generated
- Co-disposed Filtered Tailings Facility (CFTF)
  - Studying the potential for sequestrating CO<sub>2</sub> within the CFTF.





### MINE TECHNOLOGY IMPLEMENT BEST AVAILABLE TECHNOLOGIES



**Expand mineable resource** 

Significantly reduce CAPEX and OPEX

### Accelerate time to production

**Winimize environmental impacts** 



- Very low CAPEX (\$5.6M Supply + Installation)
- Low OPEX and maintenance
- High throughput
- Applicable at shallow depths

#### Full Battery/Electric Fleet



- Expected to be the standard when Tamarack is in Production
- Socially acceptable
- Eliminates diesel particulates underground

#### **Blast-less Mining**



- Production rates nearly 2x that of traditional drill/blast
- Eliminates underground blasting by 50%
- Improves ground stability and vent efficiency



25

### FEBRUARY 2021 PEA – ADDITIONAL METRICS

LOW CAPITAL INTENSITY, HIGH METAL RECOVERIES AND ROBUST ECONOMICS



		February 2021 PEA						
All amounts in		NICKEL SULPHATE	NICKEL POWDER	NICKEL CONCENTRATE				
United States dollars	March 2020 PEA	SCENARIO	SCENARIO	SCENARIO				
Mine Plan Tonnage	4.9 million	10.8 million	10.8 million	10.8 million				
Mill Treatment Capacity	2,000 tpd	3,600 tpd	3,600 tpd	3,600 tpd				
NiEq Grade of Mill Feed <sup>(1)</sup>	2.82%	1.85%	1.85%	1.85%				
Ni Grade of Mill feed	2.10%	1.34%	1.34%	1.34%				
Cu Grade of Mill feed	1.06%	0.76%	0.76%	0.76%				
Ni Tonnes in situ	103,000	144,000	144,000	144,000				
Initial CAPEX	\$219 million	\$553 million	\$316 million	\$316 million				
Total CAPEX including Sustaining CAPEX	\$259 million	\$646 million	\$395 million	\$395 million				
Capital Intensity <sup>(2)</sup>	\$21,000	\$40,000	\$23,000	\$23,000				
Ni Recovery	83.4%	78.0%	82.1%	82.1%				
Total Cu Recovery	94.4%	84.5%	86.9%	86.9%				
Production Life of Mine (Average years 1 – 5 in brackets)								
Ni tonnes	86,000 tonnes (12,900 tpa)	112,000 tonnes (15,600 tpa)	118,000 tonnes (16,500 tpa)	118,000 tonnes (16,500 tpa)				
Cu tonnes	48,900 tonnes (7,300 tpa)	68,600 tonnes (9,000 tpa)	70,700 tonnes (9,200 tpa)	70,700 tonnes (9,200 tpa)				
Revenue Split Ni/Cu/Other <sup>(3)</sup>	77%/19%/4%	79%/15%/6%	76%/20%/4%	74%/20%/6%				
Ni Concentrate Grades	13.30% Ni,	n/a	10.57% Ni,	10.57% Ni,				
	1.13% Cu	11/4	0.95% Cu	0.95% Cu				
Cu Concentrate Cradeo	27.60% Cu,	26.45% Cu	27.04% Cu,	27.04% Cu,				
	2.91 g/t Au	4.3 g/t Au	5.02 g/t Au	5.02 g/t Au				
Ni Sulphate Premium <sup>(4)</sup>	n/a	\$1.25/lb of Ni	n/a	n/a				
EBITDA Margin	60%	64%	68%	64%				
Pre-tax Cash Flow or EBIT Margin	43%	41%	50%	46%				

(1) NiEq grade based on base case metal prices of \$8.00/lb Ni, \$3.00/lb Cu, \$25.00/lb Co, \$1,000/oz Pt, \$1,000/oz Pd and \$1,300/oz Au using the following formula: NiEq% = Ni%+ Cu% x \$3.00/\$8.00 + Co% x \$25.00/\$8.00 + Pt [g/t]/31.103 x \$1,000/\$8.00/22.04 + Pd [g/t]/31.103 x \$1,000/\$8.00/22.04 + Au [g/t]/31.103 x \$1,300/\$8.00/22.04. No adjustments were made for recoveries or payabilities.

(2) Calculated as total CAPEX divided by average annual NiEq production during years 2 through 8.

(3) Other includes Pt, Pd, Au and Co

(4) Relative to LME Nickel price



### FEBRUARY 2021 PEA: CAPEX AND OPEX

**INITIAL CAPEX IS READILY FINANCEABLE** 



CAPEX							0	OPEX (US\$/t of mill feed)			
US\$ millions	Nicke	I Sulphate Sce	enario	Nickel Powder Scenario or Nickel Concentrate Scenario		Cost Category	Ni Sulpha	te Po	Ni wder	Ni Concentrate	
	Initial	Sustaining	Total	Initial	Sustaining	Total	Mining	\$27 /		enario	\$27.40
Area	Cost	Cost	Cost	Cost	Cost	Cost	Processing (milling/concentrat	(ing) \$14.2	5 \$1	4 25	\$14 25
	(US\$M)	(US\$M)	(US\$M)	(US\$M)	(US\$M)	(US\$M)	Hydrometallurgical Refining	\$26.6	3	-	-
Mine	\$130.15	\$70.32	\$200.47	\$130.15	\$70.32	\$200.47	Product Handling, Transportat	ion, \$2.22	\$	1.90	\$10.29
Process and Surface	\$390.56	\$50.41	\$440.97	\$167.51	\$22.01	\$189.51	Co-disposed Filtered Tailings Facility (CFTF)	\$0.75	\$	0.75	\$0.75
Facilities							General & Administrative	\$4.60	\$	3.76	\$3.76
Closure Costs		¢10.00	¢10.00		¢10.00	¢10.00	Total OPEX	\$75.9	\$75.99 \$48.1		\$56.54
CFTF	-	\$10.00	<b>Φ10.00</b>	-	<b>Φ10.00</b>	\$10.00		March 202	) PEA	Febru	uary 2021 PEA
Salvage Value	_	(\$5,00)	(\$5,00)	_	(\$5,00)	(\$5.00)	Primary Access	Shaf			Decline
of Mill	-	(ψ0.00)	(40.00)	-	(ψυ.υυ)	(ψ5.00)	Primary Development Method	Drill / Bl	ast	R	oad Header
Sub Total	\$520.71	\$125.73	\$646.44	\$297.66	\$97.33	\$394.99	Longhole Stope Sizes	7.5m W x 15m H x 15m L		15m W	x 25m H x 30m L
Working	¢21.00	(\$21.00)		¢10.15	(\$10.15)		Drift and Fill Size	3.0m W x 3.0m H		6.5m W x 5.0m H	
Capital	φ31.9U	(\$31.90)	-	φ10.15	(\$18.15)	-	Ore Handling	Hoisting (S	kips)	Vert	tical Conveyor
Total CAPEX	\$552.61	\$93.83	\$646.44	\$315.80	\$79.18	\$394.99	Main Infrastructure	Undergro	und		Surface

All amounts in US dollars



### TAMARACK IS ECONOMIC EVEN AT LOW METAL PRICES

At low metal prices of \$6.75 Ni/\$2.75 Cu, after-tax IRR ranges from 25.1% to 39.3%

All amounts in	Discount	NICKEL SULPHATE SCENARIO Metal Price Case			NICKEL POWDER SCENARIO Metal Price Case			NICKEL CONCENTRATE SCENARIO Metal Price Case		
United States dollars	Rate									
		Low	Base	Incentive*	Low	Base	Incentive*	Low	Base	Incentive*
After-tax NPV	7%	\$387M	\$569M	\$769M	\$415M	\$567M	\$744M	\$369M	\$520M	\$695M
(US\$ Millions)	8%	\$351M	\$524M	\$714M	\$386M	\$530M	\$698M	\$342M	\$485M	\$651M
	10%	\$286M	\$443M	\$615M	\$333M	\$463M	\$616M	\$293M	\$423M	\$573M
After-tax IRR		25.1%	31.9%	38.6%	39.3%	48.3%	57.7%	36.4%	45.6%	55.1%
Payback from start of production - pre-tax		2.2 years	1.8 years	1.6 years	1.6 years	1.4 years	1.2 years	1.7 years	1.4 years	1.2 years
Payback from start of production - after-tax		2.4 years	2.1 years	1.8 years	1.8 years	1.5 years	1.3 years	1.9 years	1.6 years	1.4 years

All amounts in US dollars

	Unit	Low	Base case	Incentive pricing*		
Ni	US\$/lb	\$6.75	\$8.00	\$9.50		
Cu	US\$/lb	\$2.75	\$3.00	\$3.50		
Со	US\$/lb	\$15.00	\$25.00	\$30.00		
Pt	US\$/lb	\$1,000	\$1,000	\$1,000		
Pd	US\$/lb	\$1,000	\$1,000	\$1,000		
Au	US\$/lb	\$1,300	\$1,300	\$1,300		

\*Incentive price is an estimated price believed to be required to incentivize new mines to be constructed. Selected incentive price based on research, however may be higher or lower dependent on numerous factors such as: inflation, future volume of demand for nickel, required return on capital and cost profile (both CAPEX and OPEX) of new projects that potentially could be constructed to meet a supply shortfall among other factors. Incentive price represents a possible price during periods of nickel demand growth such as due to the projected growth in the EV market.



# ANNEX 2:

# STAINLESS STEEL DEMAND FOR NICKEL CONCENTRATES



### STAINLESS STEEL NEEDS CLEAN SULPHIDE CONCENTRATES MAYBE EVEN MORE THAN EV

- EV or no EV, the demand for nickel concentrates is expected to rapidly exceed supply
- More so for clean nickel concentrates with low deleterious elements
- Payabilites" of Ni from the stainless steel supply chain are therefore expected to increase...without EV



Wood Mackenzie, The future of nickel production – Page 19, February 2015



# ANNEX 3:

# BENCHMARKING AND PUBLIC COMPANY COMPARABLES



### Undeveloped Class 1 Nickel Projects **After-tax IRR and CAPEX Comparison**





#### Source: BMO Capital Markets, company reports

Disclaimer: Readers are cautioned that some of the information or amounts may not be completely up to date. Note: O After-tax IRR ranked by tercile. Graph ranked by capex from lowest to highest, excluding Tamarack. Midpoint pre-tax IRR of 43% for Ta Khoa project's 6 Mpta scenario converted to an implied after-tax IRR of 37%.

After-tax IRR based on market consensus pricing from Nov-18 Feasibility Study.

4 5.

BHP has issued a tender offer to acquire Noront for ~C\$419 mm (US\$339 mm), which expires on 14-Dec-21.

Based on top 3 metals per asset; nickel, copper, cobalt, scandium and chromium shown per pound; platinum, palladium and gold shown per ounce: iron shown per tonne on a 62% iron ore basis.

Initial capex includes restated capex of US\$90 mm in 2022, and excludes costs associated with the development of the

\*Araguaia is expected to produce Ferronickel and is not a Class 1 nickel project



### Base Metal Asset Benchmarking After-tax IRR, Capital Intensity and CAPEX Comparison





Source: BMO Capital Markets, company reports

Disclaimer: Readers are cautioned that some of the information or amounts may not be completely up to dat

Note: Development projects primarily based in the Americas and Australia, with the exception of Kipushi (DRC), Kun-Manie (Russia), Ta Khoa (Vietna and Zebediela (South Africa).

Note: NiEq production calculated using long-term consensus commodity prices of US\$8.00/lb Ni, US\$3.40/lb Cu, US\$20.00/lb Co, US\$1.10/lb Zn, US\$10.00/lb Mo, US\$3.40/lb Cb, US\$1,190/cz Pt, US\$1,25/cz Au and US\$22.11/cz Ag using the following formula: NiEq production [lb] = Ni [lb] + Cu [lb] x \$3.40/\\$8.00 + Co [lb] x \$20.00/\\$8.00 + Zn [lb] x \$1.10/\\$8.00 + Mo [lb] x \$1.00/\\$8.00 + Pb [lb] x \$0.94/\\$8.00 + Pd [oz] x \$1,190/\\$8.00 +

Calculated as total development and sustaining capex (inclusive of closing costs) divided by annual NiEq production

- 2. BHP has issued a tender offer to acquire Noront for ~C\$419 mm (US\$339 mm), which expires on 14-Dec-21
- 3. After-tax IRR based on market consensus pricing from Nov-18 Feasibility Study
- . Midpoint pre-tax IRR of 43% for Ta Khoa project's 6 Mpta scenario converted to an implied after-tax IRR of 37%.

IRR based on midpoint of powder and concentrate scenarios

Initial capex includes restated capex of US\$90 mm in 2022, and excludes costs associated with the development of the pre-existing processing
plant; after-tax IRR of 74% adjusts pre-tax operating cash flow for tax impact of depreciation.



### **Limited Number of Class 1 Nickel Projects Select Advanced-Stage Development Projects Comparison**



#### **U.S. Critical Metals Supply Chain**

 In order to meet future demand expectations, significant capital will be required to explore, discover, and develop "green" metals

**North America** 

0.48% | Tamarack is the

only

development

stage high-

grade Class 1

nickel project

in the U.S.

- Supply shortage of Class 1 nickel expected, with majority of undeveloped high-grade deposits located in perceived 'riskier' jurisdictions
- As a result, increasing focus on U.S. supply chain independence and critical materials provenance
  - Class 1 nickel added to Biden's draft 'critical materials' list

S Eagle's Nest

S Tamarack

Crawford

Dumont

Turnagain

Decar

0.30%

0.25%

0.12%

S

S

S

**Advanced-Stage** 

Development

**Projects** 

- "Nickel is our biggest concern for scaling lithium-ion cell production"
  - Elon Musk, 5-Mar-21

2.95%

2.67%

724

231

6,962

10,949

5,986

5,368

**Tamarack Project** 

Investment Attractiveness<sup>(1)</sup>



M&I Resources<sup>(2)</sup> (Mlbs NiEq)

Laterite

Source: BMO Capital Markets, company reports, Fraser Institute, S&P Capital IQ I Disclaimer: Readers are cautioned that some of the information or amounts may not be completely up to Note: NiEq resource calculated using long-term consensus commodity prices of US\$8.00/lb Ni, US\$3.40/lb Cu, US\$20.00/lb Co US\$1.04/lb Cr (for Crawford only, based on 21-May-21 PEA), US\$70.00/t 62% Fe, US\$1.190/oz Pd, US\$1.100/oz Pt and US\$1,625/oz Au using the following formula: NiEq resource [lb] = Ni [lb] + Cu [lb] x \$3.40/\$8.00 + Co [lb] x \$20.00/\$8.00 + Cr [lb] >

31.04/\$8.00 (for Crawford only, based on 21-May-21 PEA) + Fe [lb] x 62% x \$70.00/2204.6226/\$8.00 + Pd [oz] x \$1,190/\$8.00 Pt [oz] x \$1,100/\$8.00 + Au [oz] x \$1,625/\$8.00.

Note: NiEq grade calculated using the following formula: NiEq resource [lb] (calculated previously) / 2204.6226 / Tonnage [t] Based on Fraser Institute's Annual Survey of Mining Companies, 2020.

Resources are inclusive of reserves

S Vermelho

Araguaia

Jaguar

S

### **CONTACT INFORMATION**

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